Foundations of the Formal Sciences
Speaker : Stephan Merz
May 9th, 8:30

Logic-based techniques for the description and analysis of reactive systems

Reactive systems, such as embedded controllers, operating systems, and network protocols, maintain a continuing interaction with their environment, as opposed to transformational systems, which compute a result from given inputs. This talk gives an overview over standard formalisms for the formal description of reactive systems and their associated analysis techniques. In particular, we will explain the basic principles of model checking, which has by now become a widely used debugging tool.